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Towards an integrated library network of the United Nations system

Note by the Secretary-General

The Secretary-General has the honour to submit to the General Assembly the report of the Joint Inspection Unit entitled "Towards an integrated library network of the United Nations system" (JIU/REP/92/5).

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ANNEX

JIU/REP/92/5
Geneva, August 1992

TOWARDS AN INTEGRATED LIBRARY NETWORK OF THE UNITED NATIONS SYSTEM

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EXECUTIVE SUMMARY

One of the major problems facing the family of the United Nations organizations is how to put at the service of the world-wide community its enormous information potential. In the Inspector'view, the problem is to be resolved through creating a system-wide network of library and information services. Certain preconditions for this network have been created.

Since the mid-1980s, most libraries of the United Nations system have significantly increased utilization of modern information and tele-communication technology for improving their operations. In many of them integrated management systems have been installed. In some others such systems are either planned to be set up or are partially operating. In a few organizations (ILO, UNESCO), tangible efforts are being made to develop a network of internal libraries and documentation centres within which libraries play an important part. Thus far UNESCO is carrying out a "Clearing House" programme aimed at co-ordinating harmonization and gradually forging UNESCO's many information services into a single system. Also ambitious in this respect is the United Nations Medium-Term Plan (1992-1997) which aims at creating a global network of conference and library services so that it can be used for electronic storage, remote retrieval and transmission of texts and images worldwide.

Certainly, the acquisition of tehcnology to modernize libraries involved significant expenditure and effort on the part of the organizations, but much will be necessary. In these circumstances, it is imperative to ensure maximum cost-effectiveness. Here again, it needs to be mentioned that the major advantage of networking is one-time loading of information by any part of network and subsequent possibility of multiple access to this information by all parts of it. Otherwise, duplication of acquisitions and irrational use of financial and human resources are unavoidable.

In order to ensure progressive movement towards creating an integrated library network, the Inspector recommends a number of measures to be taken at the level of individual organizations and of United Nations system, as a whole. These measures include :

(a) increased attention by organizations to the above, in order to establish effective linkages between all components of existing or potential networks with special emphasis on compatibility of hardware and software;

(b) clear definition of relationships among different parts of networks in organizations, with proper planning and management techniques;

(c) availability of the experience gained by the libraries in producing and administering databases to documentation centres, reference libraries and units;

(d) establishment of the administrative and functional accountability of the UNOG Library;

(e) creating a permanent inter-library panel on the basis of the existing Technical Panel on Inter-Library Co-operation Standards and Management for discussing issues of system-wide concern and elaborating policy recommendations thereon;

(f) enhancing the quality of the libraries staff.

Abbrevations and acronvms

ACABQ	Advisory Committee on Administrative and Budgetary Questions
ACC	Administrative Committee on Co-ordination
ACCIS	Advisory Committee for the Co-ordination of Information Systems
DUNDIS	Directory of United Nations Databases and Information Services
FAO	Food and Agriculture Organization of the United Nations
IAEA	International Atomic Energy Agency
ICAO	International Civil Aviation Organization
ICJ	International Court of Justice
ILO	International Labour Office
IMO	International Maritime Organization
ITU	International Telecommunication Union
JIU	Joint Inspection Unit
UNCHS	United Nations Centre for Human Settlements
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near-East
UNRISD	United Nations Research Institute for Social Development
UNU	United Nations University
UPU	Universal Postal Union
WFC	World Food Council
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WMO	World Meteorological Organization

I. INTRODUCTION

1. In the late seventies, it became evident that an ever-increasing use of information and telecommunications technology would have a profound impact not only on library operations but also on the very nature of library function. Considering this trend, as well as the fact that organizations of the United Nations system since their inception have accumulated a vast body of information, often of a unique character, the Joint Inspection Unit (JIU), in 1984, found it timely and appropriate to examine the situation in the system's libraries with a view to ensuring they were better prepared for adaptation as modern information centres.

2. In its comprehensive report entitled "Co-operation between and management of libraries of the United Nations system" (JIU/REP/84/1, A/39/299), JIU noted, in particular, that United Nations system libraries and library services could and should play a very important role in information systems, particularly in facilitating organized information flows and achieving co-ordinated bibliographic control of documentation. However, the Inspectors observed this had not yet been the case, due mainly to the fact that: (a) a co-operative network of United Nations system libraries was non-existent; and (b) many individual libraries operated in a fragmented way. It was also noted that, in order to contribute more effectively to basic United Nations system information-sharing objectives, librarians should be skilled technical specialists providing high-quality information services.

3. The Inspectors emphasized that the information contained in libraries should be organized in such a way so as to make it easily available to Member States, staff researchers and other users at local duty stations, within the United Nations system and in the world-wide community, including in particular developing countries. It was also necessary to ensure that Member States' representatives and staff have access to all relevant national and international information which they need to carry out their policy-making, negotiation and research responsibilities.

4. As a result of their analysis, the Inspectors concluded that improved co-operation between the libraries and management thereof was an essential pre-condition for their transformation into modern information centres. Therefore, a number of recommendations were formulated in the JIU report, designed to improve the functioning and effectiveness of the libraries of the United Nations system in particular through:

(a) establishment of an inter-library panel to help to develop a co-operative and effective network of United Nations system libraries;

(b) improved human resources planning for library staff;

(c) joint use of available and emerging technologies;

(d) strengthening effectiveness of depository library networks;

(e) closer relations with public information centre libraries, relevant UNESCO-supported programmes and with international library organizations;

(f) a timely and well-planned application of new technologies and other management improvements, including emphasis on a more progressive and responsive approach;

(g) an effective and integrated library network within each organization, with necessary leadership, services and support provided by the central library;

(h) a clear definition of the library's responsibilities and functions within the overall information system of each organization;

(i) the establishment and maintenance for each library of internal management objectives, workload and staffing standards and analysis, longer-term planning process and regular communication with users.

The Inspector also made specific recommendations related to the United Nations Library at Geneva.

5. It has to be emphasized that, in formulating these recommendations, JIU proceeded from the assumption that the concept of "systems" or "network" was a crucial one for libraries. It underscored the necessity of developing a network of linkages with related international units which generate and require information, with other libraries and with the international information community.

6. However, creating a network of libraries is inconceivable without extensive use of modern technology. Therefore, a special recommendation was made by JIU in this respect.

7. More than seven years have elapsed since the above JIU report was published. New information and telecommunications technologies have been introduced in the United Nations libraries which resulted in a tangible improvement of their functioning. At present, they possess dozens of electronic databases, often of a unique nature, where the information may be immediately stored on magnetic, laser or optical discs and retrieved, and even transmitted over long distances in real time. According to the United Nations Advisory Committee for the Co-ordination of Information Systems (ACCIS), there are close to 900 selected information services and computerized databases which are operated directly by or in association with the organizations of the United Nations system.

8. Certainly, the acquisition of technology to modernize libraries involved significant expenditure and efforts on the part of the organizations. And one of the major problems facing United Nations system organizations is how, through the use of the modern technology, to put at the service of the world-wide community the enormous information potential available throughout the system. In the Inspector's opinion, the problem is to be resolved through creating a system-wide library network. Such a network should bring significant gains in the timeliness and efficiency with which the services are provided and substantially improve access of Member States and the international community, in general, to information held by organizations of the United Nations family. Some progress has been made in this direction. Serious preconditions were created by the libraries themselves. Further advancement depends on whether sufficient attention will be given to the role that libraries are capable of in that area.

9. The main objective of the report is to contribute to the development of a cost-effective network of library information services in the United Nations system. Therefore, the Inspector, firstly, considers the progress which has already achieved in modernization of libraries. Secondly, he analyses the trends of and plans for further modernization of some of the United Nations libraries. The analysis underlies the recommendations presented.

10. The Inspector is grateful to all those who having contributed their knowledge of modern technological systems and library operations helped him to prepare this report. He is also indebted to many officials of organizations of the United Nations system for their valuable comments on the draft.

II. UNITED NATIONS INFORMATION POTENTIAL: SELECTED DATA

11. It is very evident that organizations of the United Nations system have acquired an enormous scientific and information potential in terms of their collections of general and specialized literature, documents, information services and databases. The bulk of this potential is held in their libraries. The following illustrates the point with regard to various Geneva-based organizations: 1/:

(a) UNOG Library: over 900,000 volumes, over 12,000 serial titles;
(b) ILO, Central Library and Documentation Branch: 500,000 monographs and 10,000 serial titles;
(c) WHO, Health Literature Services: 130,000 volumes, of which 40,000 are monographs and 90,000 serials, representing 2,500 serial titles and a small retrospective historical collection going back to the 18th century;
(d) GATT Library: 16,000 monographs and 2,600 serials;
(e) ITC UNCTAD/GATT, Trade Information Research Unit: list of trading companies, 19,000; product/market information files; 9,000 monographs; 1,500 serial titles;
(f) UNDRO Reference Library: 500 monographs and 500 serial titles;
(g) WIPO Library: 40,000 monographs, 5,000 reports, 600 serial titles;
(h) WMO Technical Library: 38,000 monographs, 320 serial titles, etc.
(i) ITU Library: 25,000 monographs, 1,000 serial titles, 370 reports, etc.

12. The total number of volumes accumulated in the book stocks of the international libraries in Geneva amounts to between 2 1/2 and 3 million, and the total of serial titles currently received can be estimated at over 32,000. In addition, some 386 information services and databases have been developed in Geneva within the framework of the United Nations family.

13. As far as the United Nations system as a whole is concerned, the most recent data concerning information services and databases can be found in the the fourth edition (1990) of the Directory of United Nations Databases and Information Services (DUNDIS) compiled by the Advisory Committee for the Co-ordination of Information Systems (ACCIS) 2/. This very useful source of reference provides not only the data on the United Nations system's information services and databases but also descriptions, including details of location and user availability, of 870 selected information services and computerized databases which are operated by United Nations bodies and organizations. A significant number of these can be accessed through the United Nations libraries. The table below suggests the number of information services and databases available in the organizations of the United Nations system.

1/ The United Nations system in Geneva: scope and practices of multilateral diplomacy and co-operation. A Working Guide, UNITAR, 1990, p. 156.

2/ The Directory defines (a) Information services as those which "refer to organizations or units which collect, store or disseminate information. They can cover information systems, indexing and abstracting services, statistical services, library and documentation services, clearing-houses and referral centres" and (b) Databases as refering "to computerized bibliographic, numeric, factual, full text and terminological databases". (p. vii)

Organization	Information Services	Databases
ACCIS	2	3
UN	38	65
Regional Economic Commissions	34	97
FAO	27	59
GATT	2	2
IAEA	7	24
ICAO	7	20
ICJ	2	1
IFAD	2	-
ILO	26	44
IMO	4	1
IMF	3	4
ITU	15	17
ITC UNCTAD/GATT	5	6
UNDRO	4	10
UNHCR	1	1
UNCHS	5	10
UNICEF	6	4
UNCTAD	6	5
UNDP	5	3
UNESCO	48	55
UNEP	9	19
UNIDO	7	21
UNITAR	2	2
UNFPA	4	4
UNRWA	1	-
UNRISD	2	1
UNU	3	5
UPU	1	1
IBRD	4	7
WFC	1	-
PAM	1	2
WHO	30	44
WIPO	3	2
WMO	7	7
Total	324	546

14. Given the magnitude of the potential described above and the increasing demand to make it available to the international community, as well as the course taken by the United Nations libraries in the area of automation of their functions, the Joint Inspection Unit, in its report on co-operation between and management of libraries of the United Nations system (JIU/REP/84/1, A/39/299), made a number of recommendations designed to improve their functioning and effectiveness, particularly through developing a co-operative and effective network. The Inspectors, inter alia, emphasized the importance of combined use of available and emerging technologies, their timely and well-planned application. They recommended creating an effective and integrated library network within each organization, with necessary leadership, services and support provided by the central library; a clear definition of the libraries' responsibilities within the overall information system of each organization.

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III. MODERNIZATION OF LIBRARIES: LEVEL ATTAINED

15. The Inspector is pleased to note that recommendations formulated in JIU report (JIU/REP/84/1, A/39/299) were welcomed by the United Nations system organizations and, to the extent their financial resources permitted, were or are being implemented by them. Thus, in the United Nations itself and some of the agencies of the United Nations system 3/, these recommendations served as a basis for elaborating the strategy for the development of library information services. The United Nations Medium-Term Plan for the period 1992-1997, which makes relevant references to JIU, provides that the principal aim of sub-programme 5 (Library Information Services) of Programme 39 (Conference and Library Services) is "to enable the libraries of the United Nations to function as a network of co-operating information centres within a wider framework of co-operation with the libraries of other organizations of the system, on the one hand, producing and processing data, and, on the other, supporting delegates, missions, Secretariat staff members and researchers from outside in their needs for documentary and factual information."

16. This chapter reviews the progress achieved by major libraries of the United Nations system with regard to the application of modern technology as well as the objectives they set in the field of automation for the years to come.

A. United Nations libraries

(a) Dag Hammarskjöld Library

17. It was during the period 1978-1980 that the present level of automation was attained allowing control of the cataloguing and indexing functions of the Library. The in-house development of special software programmes and the use of the mainframe computer at the New York Computer Centre have enabled the Library at Headquarters (and since 1985 also the Library at UNOG) to master: (a) United Nations documents and publications, (b) incoming documents and publications of the specialized agencies, and (c) external materials acquired to provide delegates, missions and Secretariat staff with supporting information.

18. Making use of a thesaurus-based descriptor system, extended when new phenomena or subjects made this necessary, the Dag Hammarskjöld Library has been able to maintain during the past decade the accessibility of documents and publications, especially by providing printed indexes and, to some extent, on-line access to the data through the well-known United Nations Bibliographic Information System (UNBIS).

3/ Thus, implementation of JIU recommendations contained in the above report by the International Maritime Organisation has resulted in the development of two databases, one of which holds the library catalogue (IMOLIB). Both databases have been operational for a year and access by professional staff via a network is planned for 1993. It is envisaged to make the databases available to interested parties on diskettes (software: CDS/ISIS) in the future. The CDS/ISIS software was specifically selected because of its widespread use in the United Nations system and in the marine information community.

19. It may be recalled that UNBIS is an on-line information system which contains bibliographic, factual, numeric, full text, authority control and support files. The system is operated by the Dag Hammarskjöld Library in co-operation with the Electronic Services Division of the United Nations with the participation of the Library of the United Nations Office at Geneva (UNOG), a member of the UNBIS network. One of the files was maintained by the United Nations Centre on Transnational Corporations (UNCTC).

20. The UNBIS's bibliographic files contain citations on publications and documents published by United Nations bodies world-wide as well as publications acquired by the Dag Hammarskjöld Library and the Geneva Library from sources outside the United Nations system. UNBIS remains the main asset of the United Nations Library, its principal functional tool. Over the years, it has evolved into a joint co-operative bibliographic network sharing data and computer resources.

21. Among the bibliographic databases administered by the Dag Hammarskjöld Library, the most specific and original is the United Nations Documents File (DOCFILE) providing citations on documents and publications of the United Nations. It is complemented by several indexes to proceedings (General Assembly, Security Council, Economic and Social Council, Trusteeship Council). Also unique and extremely useful and, therefore, in great demand not only by all the United Nations system organizations but also by many research and public institutions the world over, is the United Nations full-text Resolutions File (RESFILE), which provides the text of resolutions adopted by the General Assembly, the Security Council, and the Economic and Social Council.

22. However, over the years, it has become apparent that UNBIS, which is a joint database and an excellent technical instrument, suffers from a deficiency which is a relative unfriendliness at the entry stage. Therefore, more often than not, assistance of a trained reference librarian is required to enter the system. Thus, the Dag Hammarskjöld Library, as far as utilization of UNBIS is concerned, faces a dual task: to improve UNBIS so that non-librarians could use it without difficulty and to incorporate it into an integrated library automation system. The Library intends to install the first part during the current biennium.

23. It needs to be mentioned that the Dag Hammarskjöld Library, which automated some of its functions such as indexing and cataloguing as well as acquisitions (UNLIBHQ) and inter-library loan using a bibliographic utility (RLIN), has been lagging behind considerably in the area of automation compared to other United Nations libraries, particularly that of the Vienna International Centre. Taking into account the experience of other libraries, as well as the present and expected users' needs and the technologies developed in the meantime, the Library reconsidered its automation policy. The three goals to be achieved by the new Library automation, during the mid-term plan 1992-1997, are:

(a) to have parts of the Library's work sustained within one integrated (multi-function) library automation system (such as the checklisting and control of incoming documents, checklisting of the issues of serials, stock control, loans treatment, to mention the most important);

(b) to enhance UNBIS within the integrated system from a tool developed for use by librarians to a user-friendly retrieval apparatus, directed towards self-service by missions, secretariat staff, etc.;

(c) to provide the linkage with the optical disk system.

24. It should be emphasized that the establishment of proper linkages between the central and specialized libraries and information services is the sine qua non condition for their operation in a network manner within the Organization. Unfortunately, available documentation contains no answer as to how these linkages function or whether they were established at all.

25. In this connection, it is useful to mention that the United Nations Organization operates only 38 information services and 65 databases. There is an understanding on the part of the Director of the Dag Hammarskjöld Library that the units providing library services within the United Nations organizations have to be much more co-operative as the common goals cannot be reached by each library service on its own. Automation of information and library services give a key to such co-operation. In this context, the Headquarters Library has to play the leading role. It should also be observed that the growth and expansion of information services and specialized libraries 4/, which tend to become the most preferred place for specialized analytical research, lead to the creation of their own systems. Compatibility of these with the systems operated by central libraries is not always ensured.

26. The Inspector notes that, at its forty-sixth session, the General Assembly adopted a decision to provide US$ 400,000 (at revised 1991 rates) for the installation of the first phase of the above-mentioned integrated library management system. In this connection, ACABQ urged that "every effort be made to install a system compatible with that being used in Geneva". The UNOG library management system is referred to in paragraphs 27-39 below.

(b) UNOG Library

27. In its report (JIU/REP/84/1, A/39/299), JIU concluded that the UNOG Library appeared to have fallen behind considerably in the level of modern services provided to users by other large libraries in the system. In this connection, JIU recommended that the Secretary-General should ensure that the Chief Librarian of the United Nations Library at Geneva took prompt action to: (a) review, streamline and modernize library operations; and (b) effectively support the needs and substantive programmes of the users in Geneva.

28. In the present report, the Inspector observes that these recommendations proved useful and major reforms have been undertaken in the management of collections, new information technology, and the modernization of the Library.

29. As far as management of collections is concerned, it needs to be mentioned that the stacks have been systematically reorganized on 11 floors since 1988. The Library is now following a collections policy which makes redudant former plans to construct a building specially for storage. Moreover, forward thinking on the electronic storage of conference documents, combined with a vigorously enforced retention policy, offers new prospects for collection management, handling and accessibility.

4/ The DHL has two branch libraries -the Legal library and the Statistical library- which have been much appreciated by the staff of the departments concerned. Given the high priorities in the field of preventive diplomacy and peace-keeping operations, a possibility is being explored to establish an additional branch library to provide services to the political affairs offices and other relevant departements.

30. In the area of application of new technology, appreciable efforts have been made since the last JIU report. Three dates stand out: 1986, when the UNBIS database was launched, 1989, when the Library gained access to commercial databases and began to acquire CD-ROM products, and 1990, when the integrated Library management system was introduced.

31. The UNOG Library began to collaborate on the UNBIS database set up by the Dag Hammarskjöld Library in autumn 1984, with DOCFILE, the file of United Nations documents, and in 1986 with CATFILE, the file of commercial and outside publications routinely acquired by the Library. Co-operation on UNBIS is on a daily basis, in response to a need for documentary co-ordination and a generation of products spawned by an initial review in the 1970s. The UNBIS database has permitted the creation of documentary tools shared by the New York and Geneva Libraries, including a thesaurus and an authority file which can provide cooperative referencing for data processing by United Nations libraries and documentation centres.

32. In 1989, eight CD-ROM (Compact Disc Read Only Memory) stations were installed. Four are available for public use and four for internal use, by the Cataloguing, Serials and Acquisitions Units and by the team dealing with the installation of computer equipment. As of June 1992 the Geneva Library had ten stations and seventy-five CD-ROM titles in the following six subject areas: General Reference Sources and Indexes, Dictionaries and Encyclopaedias, National Bibliographies, Book and Publication Catalogues, Newspapers and Serials, Government and other Official publications.

33. In 1990, the UNOG Library began to install an integrated library management system to computerise the main local functions. The McDonnell Douglas system is being installed in stages. It meets current international standards, respecting the AACR 2 cataloguing rules, the MARC data exchange format and the UNBIS database. The system allows acquisitions, serials, cataloguing, loans and document circulation and the selective dissemination of information to be computerized in a single operating environment. The five integrated modules come with an on-line catalogue for general use, OPAC (On-line Public Access Catalogue), which can operate in expert or interactive mode.

34. The acquisitions module became operational in June 1990, the serials module in January 1991, the cataloguing in February 1991 and the OPAC module in May 1992. The URICA system is compatible with UNBIS using the thesaurus and the authority file of this United Nations common database, also with the envisaged system at Headquarters Library using the same rules (AACR 2) and the same international format (MARC). A software has been built by McDonnell Douglas to transfer the data produced by the UNOG Library since 1986 from UNBIS to URICA. This software was installed in the UNOG Library in July 1992. In the course of consultations held between the Inspector, on the one hand, and Chief Librarian and his staff responsible for the Library automation, on the other, the latter assured that the software will be a useful tool for the exchange of data between the DHL and UNOG Libraries. The Inspector, in his turn, emphasized the necessity of continuous and effective co-ordination between the Dag Hammerskjöld and UNOG libraries in the application of modern technology.

35. The last module of the integrated system, loans, is also to be installed in 1992. This integrated system, if successful, will allow a significant amount of time to be saved on filing of documents and could be used for improving services and making the library more responsive to the needs of its users, and thus constitute a marked step forward in the computerization of the Library at the Palais des Nations.

36. Between 1988 and 1990, the United Nations Office at Geneva conducted a trial of electronic conference document storage. The Library was involved in the planning from the outset, particularly on the interface between the optical disc system and the indexing needed for documentary research. This led to a distinction being drawn between an initial indexing system based on the registration of each document's title page by the Languages Service, and a secondary system, developed, naturally, by the Library, which would serve simultaneously to provide supplementary indexing by subject matter and to validate information.

37. The Inspector observes that the JIU recommendations to create an effective and integrated library network within each organization of the United Nations system has not yet been implemented at the United Nations Office at Geneva. Its reference library and units, at the Geneva Branch of the Department for Disarmament Affairs, in the Secretariat of the United Nations Economic Commission for Europe, the Office of the Disaster Relief Co-ordinator, the Secretariat of the United Nations Conference on Trade and Development, the Centre for Human Rights and the Office of the United Nations High Commissioner for Refugees are not yet linked to the main library system. These reference libraries and units continued to operate in a fragmented manner developing their own databases and establishing linkages with outside information systems, bypassing the UNOG Library.

38. While UNOG reference libraries and units, as a general rule, have proved effective in responding to the needs of related departments, it has to be recognized that the major advantage of networking, i.e., one-time loading of information by any part of the network and subsequent possibility of multiple access to this information by all parts of it, is not being used. Other unavoidable negative consequences of this are the duplication of acquisitions and irrational use of financial and human resources.

39. The Inspector considers that recent advances in information technology open great possibilities for decentralization of library and reference activities making it possible to concentrate research close to the work of area United Nations staff while at the same time allowing better central co-ordination and optimal use of limited resources. The Inspector believes that UNOG reference libraries and units should, as a matter of priority, be hooked up to the main library information system. In view of the on-going work of cable renewal at the Palais des Nations, it should be neither technically difficult nor financially expensive.

(c) The Vienna International Centre Library

40. The VIC Library (VICL) is a unique inter-organizational library created in 1979 with the merger of the United Nations Industrial Development Organization Library (established in 1967) and the International Atomic Energy Library (established in 1958). The VIC Library serves the International Atomic Energy Agency (IAEA), United Nations Industrial Development Organization (UNIDO), and seven other United Nations Organizations (UNOV, UNIS, CSDHA, UNDCP, UNCITRAL, UNSCEAR, UNRWA), as well as representatives of permanent missions accredited to these organizations located in Vienna and registered conference attendees. Services are provided not only to individual staff within these organizations, but also to various sub-units of the organizations. The Library maintains formal and informal connections with the Public Information offices of the IAEA and UNIDO/UN, as well as with the IAEA/UNIDO/UN staff who run "Reference Collections" of differing sizes, located in the organizations at the VIC. These include the Reference and Terminology Units of the IAEA and UNIDO/UN, the UNDCP Reference Collection,

UNSCEAR, CSDHA Women Branch, UNRWA, Medical Services and others. In some cases, the Library is a net lender and information provider, in others it receives information and documents from these units. In many cases the exchange is mutual. The Library maintains close contacts with the library of the United Nations Office of Legal Affairs, International Trade Law Branch (UNCITRAL), also located at the VIC, and with the collections contained within the IAEA's Laboratory at Seibersdorf, Austria, the IAEA Marine Environment Laboratory, Monaco, and the International Centre for Theoretical Physics, Trieste.

41. Because of its mandate to serve so many organizations, the Library is operated as a VIC common service. It is administered by the IAEA, but its funding comes basically from the IAEA, UNIDO, and the United Nations. It has to be noted that the costs incurred are shared with respect to programmes in which two or more organizations are interested. Otherwise they are borne entirely by one organization. It is also appropriate to mention that each professionnal librarian acts as liaison officer to a specific VIC organization or unit.

42. The VIC Library maintains very close contacts with the Dag Hammarskjöld and UNOG libraries. Thus, searching of UNBIS databases goes on daily via the IAEA mainframe and telecommunications line to New York. UNBIS is used primarily, but not solely by the Documents Units staff, serving not only as a source of information but also as a "catalogue" or index to VICL's United Nations documents holdings. UNBIS is considered to be of enormous value for its operations and the Library underscores the importance of efforts aimed to make it more user-friendly (this problem is also referred to in paragraph 21 above) as well making it available on CD-ROM. The latter will allow UNBIS to be used by installations that do not have dial-in access to it.

43. Apart from utilisation of UNBIS, the majority of VICL contacts with other United Nations libraries are in the area of inter-library loans (ILL). In many cases, DHL, ILO and UNOG may be the first ILL source to be approached, particularly for topics in the social sciences and the Third World. In this regard, it needs to be mentioned that some requests made by VICL are not responded to by DHL. In general, UNOG and ILO Libraries respond to VICL requests for photocopies of articles. WHO Library discontinued supply of photocopies of articles available elsewhere. This represents an additional expense as, generally, VICL has difficulty in obtaining copies of medical journals in Austria that are not held centrally. Consequently, VICL has to purchase photocopies from the BLDSC (British Document Supply Centre) at approximately US$9 per 10 pages or from medical libraries in Germany or Switzerland, who charge about the same. The FAO Library also charges for photocopies, but at a favourable rate. In general, there is no problem in the loaning of books, although DHL again tends to be slow in responding. VIC Library ILL staff would appreciate search-only access to the ILO Library database.

44. Given the variety of interests and programmes of the organizations served by the Library, it carries out an important gift and exchange activity whereby IAEA, United Nations or UNIDO publications are exchanged for those of research institutions and other organizations. Within the framework of this activity, the Library currently receives over 1,900 journal subscriptions free in all subject areas.

45. It was in the VIC Library that the process of automation of library functions in the United Nations system actually began. This, as well as the fact that the Library is headed by a very competent librarian and has a qualified programme analyst, explains the high level of automation of services attained by VICL.

46. At present, almost every function of the library is computerized. The most important database in the Library's management system is LION (Library Information On-line). It is the Library's on-line catalogue, totally replacing the conventional library card catalogue of pre-automation days. The LION database contains records of the Library's collection of books, some serials, selected documents and technical reports. It also includes bibliographic information on and synopses of the VIC library's collection of films on the peaceful use of nuclear energy. The LION database can be produced on microfiche as a COM (Computer Output Microform) catalogue.. Though LION is available for direct on-line searching, the Library has developed what appears to be an easier and more user-friendly way of searching the database, an On-Line Public Access Catalogue (OPAC). At present, users, via connection to the IAEA mainframe computer, are able to search in the Library's catalogue from their own terminals and PCs in the towers of the Vienna International Centre.

47. The Library also administers 5 other databases. Its book acquisition database (LIAC) handles ordering of monographs (about 3,000 a year), maps, single items of microfiche or journal issues, films, video-tapes, etc. LISA, the on-line serials database which contains approximately 6,700 journal records for titles owned by the Library, is used by library staff for adding or cancelling subscriptions, processing individual or multiple copies of subscriptions, for renewals and for producing routing slips for journal titles. A very useful product from LISA is the VIC Library Serial Titles printed catalogue. Automatic checking in and claiming of individual issues as well as a fund accounting function are not available on LISA and, until recently, had been carried out manually. Measures have already been taken to automate it with the acquisition and installation of serials management software.

48. There are three other lesser known but interesting databases in the VIC Library. One of them is LICO which provides information on conference proceedings in the Library's Collections no matter whether the proceedings are in the form of books, technical reports or special issues of journals. Since mid-1991 this database has not been updated (the input instead goes into the LION database) but the database is available for searching. LILO is the database which contains information on all circulation transactions (book loans, extensions, recalls, etc.). Bar-codes are used to interact with LILO (each book as well as staff member's grounds pass is bar-coded). The LILO databse is linked with the on-line public access catalogue (OPAC) to show users the availability status of the items they are searching. PERS is the database containing basic patron information. Major updates to PERS come monthly from computer files of the IAEA, UNIDO and UN: other updates are made by circulation desk staff on a daily basis, using PERS programmes.

49. In 1989, as part of its continuing effort to explore ways of using new technology to improve effectiveness, the Library installed CD-ROM discs drives. It presently has approximately 16 commercial publications on CD-ROM. including the INIS and AGRIS databases.

50. THE VIC Library can access over 200 databases of all types — bibliographic, full-text, economic, news, statistical, with a total of more than 40 million records by making use of access to a number of computers. The diagram "VIC Library Major Computer Applications and Series" (see Annex) shows VICL major linkages with databases and computer-based information services outside the library. Within the VIC, this includes (1) linkages with Abstracts

(IDA) database, (2) linkages via the IAEA mainframe computer to the INIS and AGRIS databases, to telex and office automation (electronic mail facility), to the United Nations, New York, to commercial databases offered by DIALOG, ESA, etc., and (3) connection via modem to the Austrian National Library database of serial holdings in Austria and (requested) to the Eidgenoessische Technische Hochschule (ETH), Zurich for interlibrary loan. By way of conclusion, it may be noted that with this capability, plus its inter-library loan network (at present inter-library loan agreements are established with over 180 other libraries and institutions), the VICL, within the bounds of financial and staff constraints, is progressively realizing the concept of a "library without walls".

B. Major libraries of the specialized agencies

(a) FAO Library

51. One of the basic functions of the United Nations Food and Agriculture Organization (FAO) is the collection and dissemination of information about agricultural development, especially that of developing countries. A major role is played in this by the Library and Documentation Systems Division (GIL). It is responsible for the maintenance of effective FAO library and documentation services, for improving dissemination of knowledge in the fields of FAO's competence and for assisting developing countries in establishing/strengthening their national infrastructures in agricultural documentation. At the same time, it is the focal point for the production and management of bibliographic and referral databases within the Organization, including the FAO regional offices and country representations as well as in National Agricultural Documentation Centres. The library and bibliographic information services are recognized in totality and there is a close integration of the library systems with the international information system AGRIS co-ordinated by FAO (see paragraph 57 below). GIL operates through two branches: the David Lubin Memorial Library (GILB) and the Systems and Projects Development Branch (GILS).

52. Thus, GILB collects catalogues, indexes and converts to microfiche all substantive documents and publications produced by the Organization as well as a significant proportion of project documents originating in the field. The Library has a collection of over a million items covering broadly the fields of food and agriculture, forestry, fisheries and rural development in both technical and socio-economic aspects. Of these, some 110,000 records are FAO documents and 7,000 currently received periodical titles with the total number of serial holdings being approximately 14,500 titles. The Library serves FAO Headquarters, field staff and users in member countries through its main library and four branch libraries (Fisheries, Food and Nutrition and Statistics; Forestry).

53. In 1967, automated systems were developed under CDS/ISIS, a bibliographic database management system which was developed, maintained and distributed by UNESCO, thus ensuring compatibility with other United nations bibliographic systems using the same system. The system runs on the AMDAHL 5880 mainframe under CICS (Customer's Information Control System). Presently, the database contains bibliographic records of over 110,000 FAO documents and approximately 38,000 monographs (the books after 1976). The bibliographic database is used for in-house online searches and production of subject bibliographies on request (approximately 2,200 per year). Other Library products are:

- FAO Documentation-Current Bibliography (a bi-monthly bibliographic list of FAO documents);
- FAODOC cumulative index on COM (annually);
- FAO DOC-extracts in ISO 2709 standard format for bibliographic data exchange (magnetic tape, diskette, etc.);
- FAO input to AGRIS;
- Specialized bibliographies (irregular);
- List of Selected Articles and New Books (monthly);
- List of Serials currently received (COM indexes).

54. In 1990, a micro CDS/ISIS package was prepared to cope with FAO's representational information needs. This microcomputer-based system allows access to the microfiche collections of their respective country documents. REPDOC has been distributed to 32 FAO country representations and 24 projects. Some 25,000 records have been downloaded from the FAODOC database. During the same year, at the AGLINET (Agricultural Network of Libraries) Meeting, the Library introduced E-mail communications through two world-wide accessible networks, EARN and ICC. To date, the exchange has been with other AGLINET libraries under EARN/BITNET only. In this connection, it may be recalled that GILB acts as a co-ordinating centre for AGLINET, a cooperative network of the main agricultural libraries in the world (27 members), which ensures inter-library loans and provision of photocopies.

55. In 1991, the Library installed ISIS (Integrated Serials Information System) on interlinked micro-computers setup. The system is operated locally but it also supports remote access via modem. Automatic data transfer for all library periodicals ordered through Blackwell's has been applied and similar data transfer from the existing FAO serials database is under development. ISIS will allow for full automation of serials management operations (orders, check-in, claims, routing, invoicing, etc.)

56. The Systems and Projects Development Branch (GILS) serves all member countries by assisting them in improving the transfer of agricultural information and in establishing and/or strengthening their capabilities for the collection, storage, retrieval and dissemination of agricultural information, through three activities: AGRIS (International Information System for the Agricultural Sciences and Technology), CARIS (Current Agricultural Research Information System), SPIDA (Support to Agricultural Information and Documentation Projects).

57. AGRIS and CARIS are two international co-operative information systems for the agricultural sciences and technology co-ordinated by FAO. They are based on the principle of voluntary participation of countries in the systems by providing input concerning the relevant information produced within their boundaries and draws from the systems according to their own needs. Co-ordination is carried out by GILS through a Co-ordinating Centre which also provides the methodology, training of participants and other supporting services. Participating countries maintain contact through a national centre for each system of which 79 are joint AGRIS/CARIS centres. Technical consultations between participating centres are held every two years.

58. AGRIS is the largest agricultural information network with 171 members at national, regional and international levels. The database has accumulated nearly 2 million records since 1975 and is increasing at the average rate of 125,000 items per year. AGRIS is compatible with INIS (International Nuclear Information System) co-ordinated by IAEA. The FAO's AGRIS Processing Unit is maintained at IAEA under contractual arrangements and shares with INIS the use of IAEA's computer facilities and software. The AGRIS database is accessible

via the international telecommunication networks at DIALOG (non-US portion only), DIMDI (Cologne), IAEA (current and previous year). It is also being mounted at ESA/IRS (Frascati). The database on CD-ROM has been produced by Silver Platter and is distributed free of charge to participating centres. National bibliographies are produced on request using laser printing.

59. CARIS deals with Current Agricultural Research Information (institutions, researchers and projects) from or related to developing countries. 134 countries now participate in the system. The database is maintained at FAO's mainframe using CDS/ISIS and contains around 30,000 projects. Participating centres receive national inventories on diskette and in laser printed directory. They are also entitled to receive the global database on tape.

60. SPIDA covers all field activities carried out by GILS in member countries comprising short consultancy or ad hoc assistance missions, long-term projects for the establishment or strengthening of national/regional infrastructures in agricultural information and documentation, involving project formulation and planning, provision and methodology, experts, equipment and training.

61. With regard to the use of optical disc technology, it may be noted that the Library is monitoring developments in the area of optical storage, but is not considering the replacement of document microfiching with an optical storage system for the time being.

62. In the area of co-operation with other United Nations Libraries for inter-library loans, links have been developed with libraries with related subject activities (ILO, VIC, WHO, etc.). The Library now has access to UNBIS and can be accessed by other United Nations Libraries (WHO's access through ICC to the FAO database has been tested successfully). In this context, it needs to be mentioned that selection of relevant documents received from the other United Nations agencies is entered in AGRIS by the library, but in view of the resource limitations, it needs assistance from other agencies in inputting their relevant documents.

(b) ILO Library

63. The Central Library and Documentation Branch plays a major role in fulfilling the statutory responsibilities of the International Labour Office as a whole with respect to the collection and dissemination of information (Article 10 of the ILO's Constitution). In fact, the Library has two general objectives: a) to make available to the ILO and its constituents an international information service on social and labour questions; and b) to provide Member States and the ILO's field offices with the tools to make effective use of ILO information and labour information from other sources.

64. As suggested below, in attaining these objectives, the computerization of the ILO library, which began in 1963 has been of crucial importance. The salient feature of this process was that work on the automation of the Library and documentation services, and on the production of its main database LABORDOC, proceeded simultaneously. Having on board three systems analysts with advanced library degrees, ILO embarked on the development of its own package, ISIS (Integrated Scientific Information System). Due to a series of financial crises facing ILO, this work was later transferred to UNESCO. ISIS was eventually used by more than 100 national, regional and international organizations around the world. In 1978, ISIS was replaced at ILO by MINISIS, a more modern system derived from ISIS, capable of running on a minicomputer. At present, all the Library functions: acquisition, cataloguing, loans, document circulation, etc. are automated.

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65. The computerized information database LABORDOC -accessible on-line- provides unique international coverage of monographic, report and journal literature on labour relations, labour law, employment, working conditions, vocational training, project evaluation and labour-related aspects of economics, social development, rural development, technological change, etc. It contains over 180,000 records with full bibliographic details and indicative abstracts with indexing descriptors selected from the ILO Thesaurus. Nearly 600 titles and abstracts are stored each month in LABORDOC.

66. Initially, and indeed for many years, the creation of records for LABORDOC was solely the responsibility of the Library. Now, that responsibility is shared by a dozen departmental documentation centres in the Office which regularly feed LABORDOC. These centres are working under the technical guidance of the Library and apply the same cataloguing rules and key words from the ILO Thesaurus. It is expected that, in the future, the ILO field offices to which the database is distributed on diskette will also feed their records into the database. In this context, it needs to be acknowledged that the ILO Library is undoubtedly playing a central role in the ILO bibliographic information network.

67. The latter includes a number of bibliographic-type databases (legislation, institutions, for example) also developed by ILO which, to the maximum extent possible, use the same tools as LABORDOC. It is useful, for example, to be able to access texts of legislation and commentaries on legislation in the same manner even though the references may be in different databases.

68. The ILO's LABORDOC database is available through three commercial hosts, two broad services (ESA-IRS and Orbit) and one service specializing in human resources development (HRIN). Non-commercial hosts include the International Development Research Centre, the League of Arab States, the United Nations Economic Commission for Latin America and the Caribbean, and the United Nations Economic Commission for Africa. Searching LABORDOC on non-commercial hosts is sometimes limited to non-profit-making organizations.

69. Since 1987, LABORDOC has been available on-line through the ILIS (International Labour Information System) referral system. The ILIS programme was designed to improve the availability, in Member States, of ILO information services, and of labour information in general, through: a) co-ordination of information systems developed by the ILO; b) strengthening information services in external offices and the exchange of information between these and headquarters; and c) improving the capacity of institutions in Member States to process and use labour-related information. It contains directory-type information on all departments, branches and sections of the ILO, and it gives easy access to many of the other MINISIS databases set up by the ILO. The ILO Thesaurus, originally developed as a documentary language in English, French and Spanish for indexing and retrieving information stored in the LABORDOC database, has become a key element in ILIS as a common indexing and research tool. At present, the system provides external access not only to ILO offices but also to the ILO constituents and research institutions. Access to ILIS is free for constituents, but a basic charge may be introduced in 1993 for some categories of users.

70. Summing up the development of ILIS, which is an ILO sub-programme, it may be noted that initially the main focus was on co-ordination of in-house services and promoting the idea that organized information was an essential tool for the work of the ILO and its social partners. Since a network of information services now exists at Headquarters and there is increasing demand from Members States for assistance in establishing information services and networks, the sub-programme now concentrates on objectives (b) and (c) described in paragraph 69 above.

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71. During the biennium 1992-1993 5/, ILIS will emphasize easing access to the ILIS Referral System and the information it contains for countries with telecommunication links with the ILO. The work will focus on making the system more user-friendly and on including in it other ILO information, particularly statistics, textual information on international Labour Conventions and their application, and national legislative texts. For countries where telecommunication links have not yet been installed, information will be transmitted on diskette, magnetic tapes and on CD-ROM.

72. Another element of the ILIS programme is the provision of advice and training to Member States on the organization of labour information services. It is intended to co-ordinate these services closely with the regional centres, ILO offices and multidisciplinary teams and to make them available to ILO constituents as well as to research institutes adressing labour issues.

73. The establishment and strengthening of information services in labour ministries is a major concern because of the catalytic role these can play in national labour information networks. Therefore, attention will be paid to developing appropriate tools and training programmes. In this regard, it may be mentioned that a number of seminars on how to strengthen labour ministry information services have already been held in Africa, Asia and Latin America.

74. Also, a training package was developed by ILO in order to help train labour information staff. In some ILO offices, micro-computer systems (Micro CDS/ISIS) compatible with the MINISIS system used at Headquarters have been installed. As far as training on Micro CDS/ISIS is concerned, close co-operation is maintained between ILO and UNESCO.

75. In conclusion, the Inspector observes that: (a) ILO members appreciate efforts made by the Office 6/ in the development of information systems; and (b) given the experience gained and the level obtained in automation of its library, ILO is recognized in the community of international organizations as a source of expertise on the subject.

(c) ITU Library

76. The ITU Library has been in existence since 1949 as a unit in the ITU's Department of Conferences and Common Services. Its collection is devoted mainly to telecommunications, such as telegraphy, radio, television and space communications. It also includes some 1,000 periodicals (magazines, journals, reviews and newspapers), 370 annuals (reports, statistics) as well as two copies of every set of ITU Conference documents. United Nations and specialized agencies collection is very limited.

77. From 1963 to 1992, the library's budget has increased from SFR 30,000 to SFR 50,000 which represents only a symbolic increment if allowance for inflation is made. The budget covers the expenses related to the purchase of periodicals, dictionaries and atlases only. Monographs and other publications are received by the ITU Library as gifts or in exchange for ITU publications.

5/ See the Director/General's Programme and Budget Proposals for 1992/1993, GB. 279/PFA/, p.p. 120/2 and 120/3.

6/ See, in particular, Third Report of the Programme, Financial and Administrative Committee, 613/249/9/25, 249th session, Geneva, 27 February to 2 March 1991, p.p. 75 to 76.70.

78. Thus, at present, the ITU Library continues to operate in a traditional way despite the fact that the need to transform it into a modern information centre was recognized in the early 1970s. Indeed, the ITU Plenipotentiary Conference (Malaga - Torremolinos, 1973) adopted Resolution No. 47 "Telecommunications Documentation Centre at ITU Headquarters" which instructed the Secretary-General, inter alia:

"1. To pursue, with the assistance of the other permanent organs of the Union, studies with a view to the creation of a documentation and bibliographical reference centre for telecommunications to be responsible for:

1.1 facilitating the use of the documentation published by the Union;

1.2 collaborating with other international or national documentation centres in the exchange of bibliographical references in order to avoid duplication of work, reduce expenses and, at the same time, centralize world information on telecommunications;

1.3 placing this information at the disposal of Members and the officials and experts of the Union."

79. Finally, the resolution requested the Secretary-General to "take the necessary steps within the limit of available resources, to enable these studies (referred to in paragraph 1. of the resolution) to be made", and to "report to the Administration Council so that the next Plenipotentiary Conference may take decision on the matter".

80. Eight sessions of the Working Party on the implementation of resolution No 47 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973) were held during the period 1975-1981. At its eighth session, the Working Group adopted its seventh report for submission to the Plenipotentiary Conference (Nairobi, 1982), in which it concluded that a telecommunications documentation centre at the ITU Headquarters was needed, that it was feasible and most timely. However, the Plenipotentiary Conference (Nairobi, 1982) did not take any decision on the matter.

81. At its 47th session scheduled to take place from 29 June to 10 July 1992, the ITU Administrative Council will examine a document submitted to it by the Secretary-General to use the Centenary Prize Funds (some SFR 600,000) for the modernization of the ITU Central Library. This involves enlargement of present library facilities (SFR 100,000) and the acquisition of reference works (technical encyclopaedias, dictionaries, etc.) and handbooks (SFR 200,000), as well as computerization of library operations (SFR 150,000) and upgrading of library services (SFR 150,000). If approved by the Council, the implementation of this project should start in the second semester of 1992.

(d) UNESCO Library

82. Similar to many other United Nations specialized agencies, UNESCO collects and disseminates an enormous quantity of information pertaining to its area of competence. This information is contained in different information and documentation systems and services as well as in its databases which are administered by the Division of Information, Library and Archives services, and substantive departments.

83. The UNESCO Library is the major information service of the Organization. It was created in 1947 with the principal function of satisfying the information needs of the Secretariat in the execution of the Organization's programme as defined every two years by the General Conference. The disciplines covered reflect the diversity of the activities of the Organization in the fields of education, science, culture, social and human sciences, communication and information.

84. The Library book collection amounts to about 200,000 volumes and 2,000 titles of periodicals and newspapers. Its microfilm collection (60,000 microfiches) contains UNESCO documents issued since 1972 to the present. The library carries out activities as follows: (a) indexation of all the documents produced by UNESCO, including those issued by its regional offices (bureaux) and affiliated institutions; (b) indexation of all acquisitions; (c) bibliographic research through the internal (UNESBIB) or external databases using the system DIALOG; and (d) training in information processing (using UNESCO'S CDS/ISIS software) for participants in the network and interns from Member States. The Library also provides reference and referral services, and loans, including inter-library loans.

85. The main products of the library are:

(a) UNESCO List of Documents and Publications (ULDP), a quarterly publication with annual and triennial cumulations;

(b) UNESCO Library Acquisitions (ULA), a quarterly publication which contains complete bibliographic notes of all recent acquisitions of the library. It is distributed free of charge among the staff of UNESCO Headquarters and regional offices as well as among hundreds of Member States' organizations;

(c) a cumulative indexation of all main UNESCO periodicals ("Impact": Science and Society", "Le Courrier de l'UNESCO", "Museum", etc.).

86. The Library follows the evolution of the Programme of the Organization and applies modern techniques of information processing and retrieval. Computerization started in 1972 and the Library is the major user of the CDS/ISIS software, which was developed by the former Division of the UNESCO Library, Archives and Documentation Services (LAD). CDS databases can be accessed from terminals in the reading room.

87. The UNESCO Bibliographic Database (UNESBIB) is the principal database of the CDS system. It contains bibliographic citations on publications purchased outside the Organization as well as on documents produced by UNESCO since 1972 (publications, documents and periodicals). At present, the database contains 89,000 references. The indexing tool is the "UNESCO Thesaurus" which is a structured vocabulary for information processing in UNESCO's fields of competence. It was published in 1977 and translated into French and Spanish in 1983. A new, fully revised edition is scheduled for publication in 1992.

88. The Library also manages the UNESCO Integrated Documentation Network comprising sectoral documentation centres which have sub-databases in UNESBIB. Training in information processing using UNESCO's CDS/ISIS software is provided for participants in the Network and interns from Member States.

89. The UNESCO Library does not have an integrated library management system, but the elements for such a system already exist; the cataloguing and indexing, book and periodicals acquisitions are already computerized using the CDS/ISIS software.

90. In co-operation with its Member States and non-governmental associated organizations, UNESCO has established a number of centres and networks capable of obtaining and disseminating specialized information by themselves. By way of example, the following networks may be mentioned: (a) Regional Network for the Exchange of Information and Experience in Science and Technology in Asia and the Pacific (ASTINFO); (b) similar network in the Caribbean (CARSTIN); (c) Asian Pacific Information Network on Medicinal and Aromatic Plants (APINMAP); (d) Pan African Network for a Geological Information System (PANGIS). A number of networks also exists in the Education Sector, in particular NEIDA, APEID, CARNEID, CODIESEE, INISTE, etc.

91. At UNESCO, the Library and Archives have been part of the same division since 1961. The Archive Service (ARC) is responsible, in collaboration with Secretariat Units, for records and archives management. It contributes to the documentation network as an information service and by maintaining the ICONFEX database which contains references to the resolutions of the General Conference and the decisions of the Executive Board and related documents. However, as yet there is no computerised information system for the control and retrieval of information from Secretariat records.

92. The above suggests that over the last several years the UNESCO information dissemination function has developed considerably. New objectives have been set for these bases, the attainment of which required taking into account experience gained in using the information infrastructure available to UNESCO. As a result of the analysis made in this area, the following three major deficiences were brought to light. First, the existing services were established in an unco-ordinated manner which makes it impossible to use effectively all documentation resources to meet the demands for information. Second, insufficient use of technologies facilitating users' access to information because of the reduction of financial resources made available to the information services over the two last medium-term plan periods. Third, difficulties of coping with increasing Member States' demands for information, and particularly for processed information. Therefore, the conclusion was drawn that UNESCO should expand its services in order to comply with Member States' needs for information. An evaluation in this respect is envisaged.

93. To cope with the demand from Member States for a stronger information disseminatio function within UNESCO, a new programme entitled "Clearing House" has been introduced into the third Medium-Term Plan (1990-1995). This programme, among other actions, is aimed at co-ordinating, harmonizing and gradually forging UNESCO's many information services into a single clearing house. Emphasis is placed on the information needs of Member States and co-operating organizations, to which UNESCO is uniquely equipped to respond without duplicating existing international databases and information services. This will also call for strengthened links with co-operating intergovernmental and non-governmental organizations if access to information and expertise is to be further expanded.

94. The UNESCO General Conference in its resolution 25 C/Resolution 112 of 8 November 1989, emphasized that "in developing the clearing-house function of the organization, use should be made of already existing units and

facilities." That is why the programme will consist of strengthening, consolidating and co-ordinating UNESCO's existing information services with a view to making them more useful to Member States while, at the same time, taking full advantage of contacts with users and the expertise of the Secretariat and without recourse to the creation of new institutions.

95. As throughout the Plan, the strengthening of the overall clearing-house function of UNESCO, includes setting up the Organization's information services, their reinforcement and harmonization, resulting in a coherent basis for this improvement. An in-depth feasibility study with the purpose of finding an optimal solution was completed and presented to the General Conference at its 26th Session in October 1991, and was accepted. This study covered the range of requests which the Organization is likely to receive, the category and profile of potential users of a clearing-house service, ways and means of improving access to existing information, determination of priority types and subject areas for services. The centre became operational in January 1992 with the objectives of co-ordination, harmonization and distribution of UNESCO databases. Specifically, these include:

- the preparation of an inventory of existing information systems;
- the production of a CD-ROM prototype containing six UNESCO databases, including UNESBIB; and
- making three UNESCO databases available on-line, which is foreseen for the end of 1992.

96. It is in the second and third phases of the Plan that any decisions which the General Conference may take concerning the housewide clearing-house function will be implemented. They may concern the establishment of an appropriate infrastructure to allow on-line access to users. An important component of the overall clearing-house function of UNESCO is the Organization's library and archives services, which will ensure dissemination of bibliographic information on the documentary output of the Organization, provision of reference and information services for Member States and the Secretariat, maintenance of the UNESCO Thesaurus, as well as updating and utilization on CD-ROM (Compact Disc-Read Only Memory) of the UNESCO Bibliographic Database (UNESBIB).

97. The Division of Information, Library and Archives guarantees access to all UNESCO texts since 1945 on microfiche or as photocopies if they are no longer available in their original form. The division incorporates a microform service which is responsible for security, substitute and archival microfilming, and makes copies for distribution and sales purposes.

98. It, therefore, appears that significant, positive efforts are being made by UNESCO to ensure that its information library and archives services, as well as substantive departments possessing their own databases, work as a network. However, it needs to be acknowledged that because of lack of resources some of the projects (reinforcing existing information structures, development of the reference service open to other institutions possessing information of interest for library users and those of archives, facilitating access to UNESCO databases) are progressing very slowly. It may also be noted that since 1985 the number of full-time indexing staff has been reduced from 5 to 2 though the volume of bibliographic research and analysis has not diminished tangibly. As a result, the number of input items over the same period decreased as follows: 1985 - 4,811 units, 1989 - 3,162 units, 1990 - 2,892 units).

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99. The Inspector believes that the following measures need to be implemented in order to ensure effective functioning of the UNESCO Library, archives and information centres of substantive departments in a network manner, as well as UNESCO making a significant contribution to the potential system-wide library network:

(i) enhancing the central role of the library and reinforcing peripheral structures (centres and units participating in UNESCO network);

(ii) paying increasing attention to establishing effective linkages between all components of the network as well as to hardware and software used by the library and documentation centres in order to ensure their compatibility;

(iii) enhancing the bibliographic database UNESBIB which already ensures the balance between centralization and decentralization;

(iv) increasing the documentation fund of UNESCO through acquiring or subscribing to CD-ROM databases, such as Eric, Pascal, Francis, etc.

(v) providing to the library and archives services the necessary resources for the implementation of the above measures through already existing resources of the Organization, if additional resources cannot be made available.

(e) WHO Library

100. It is in WHO where the Library 7/, more than in many other organizations, has acquired, in addition to its traditional functions, those of a modern information centre. The WHO Library and Information Centre is part of the Office of Library and Health Literature Services (HLT), which co-ordinates a global programme aimed at upgrading health information and literature resources in Member States. In WHO/HQ, HLT's objectives are to: collect and process information to meet information needs of its users; facilitate and promote the use of WHO information; and offer training and advisory services in management of information resources. As co-ordinator of the Health Literature Services Programme, HLT is developing ways and means to support information initiatives in Member States and strengthen their libraries and documentation services, in liaison with WHO regional offices. In this capacity, it also acts as a central purchasing agent for libraries, documentation centres and projects in developing countries, enabling them to select and acquire information sources on all media. Facilities for payment in local currency through a WHO Revolving Fund are provided.

101. The WHO Library was fully computerized in 1986. Its database includes references to all the library collections. It can be consulted through several terminals located in the reference area. Training is provided to enable library users to access the databases themselves. The database can also be accessed through the WHO Local Area Network (LAN). Technical programmes in Headquarters may maintain specialized databases in their subject fields which contain bibliographic references to all documents issued by their programmes, including restricted material. They supplement WHOLIS.

7/ The present report deals only with WHO Headquarters Library.

102. Information and documentation services at Headquarters have been organized by the Library into a network (SID) so as to co-ordinate their activities. Standard methodologies have been adopted. A server located in the Library gives on-line access, through the LAN, to the various SID bibliographic databases. The Library also offers advisory services to newly-created SIDs on the management of information resources.

103. As a comprehensive source of WHO documentation, HLT: (a) maintains complete collections of WHO publications and documents for preservation and easy consultation; (b) maintains a bibliographic database; and (c) disseminates WHO bibliographic information and assesses the use of WHO documentation.

104. As an information and documentation centre, HLT: (a) provides access to information from all sources; (b) provides current awareness services; and (c) develops tailored information packages for specific tasks and target audiences.

105. Moreover, HLT acts as a facilitator in information management. Within this framework, HLT: (a) offers advisory services and technical expertise and helps users to develop their own information skills; (b) carries out research and development projects; and (c) disseminates information about latest developments, new sources of information, new appropriate information technologies and training opportunities. In order to assist the WHO regional offices, HLT has worked out a WHO representative documentation module. The aim of the project is to strengthen information and documentation support to WHO representatives by the installation and maintenance of ready-to-use documentation modules in WR's (WHO Representative) Offices. The documentation module would consist of:

(i) easy-to-use collections of WHO publications, documents and periodicals (already received by the WR on a regular basis) arranged in labelled boxes provided by HLT;

(ii) an index to the collection's contents in printed form or on diskette derived from the HLT WHOLIS database of references to WHO publications, documents and periodical articles; it can be searched by topic, country, author, meeting, etc.;

(iii) a small reference collection to which local and country specific material would be added by each WR.

Ready-to-use essential information packages are also being prepared for specific audiences according to needs.

(f) WIPO Library

106. The salient features of the WIPO library are: (a) its relatively small collection (25,000 bound volumes; 15,000 classified articles and 280 current periodicals) consisting mostly of highly specialized publications and documents in the fields of industrial property-patents, trademarks and industrial designs—and copyright, as well as a complete collection of all publications and documents issued by WIPO and UPOV; (b) small staff (1 Professional and 2 General Service staff); and (c) a high level of computerization.

107. With regard to computerization, it may be noted that after having studied the market and seen a number of library computer systems in Geneva and elsewhere, WIPO decided to acquire the OASIS library system (Open Access Strategic Information System) running on Compaq 286 and 386 personal computers and connected to a Novell network. This very modern computer system has the latest features, including "windows" and multi-coloured screens, which make the system very easy to use, in particular for data entry and for accessing records. Searches may be undertaken not only by traditional means but also through full Boolean search and full text retrieval. The computer system generates bibliographical lists containing information about all recent acquisitions made; these lists are regularly issued and widely distributed.

108. The system was installed in July 1990 at a cost of about SFR 100,000. Since then some improvements have been added, for instance, the installation of a full text retrieval software. Once training had been given to the staff, the input of the existing card catalogue was undertaken and completed by the end of June 1991; the system was fully operational by October 1991. It now includes modules for acquisitions, catalogue, circulation (including internal loans), OPAC (On-line Public Access Catalogue) and a full text retrieval (Extract) software.

109. The Inspector was informed that the Organization had been very satisfied with the chosen configuration: it can be handled easily by ordinary librarians without education in computer techniques. It is interesting to note that the European Patent Office in Munich recently acquired the same system for its Library.

IV. TOWARDS CREATING A NETWORK

110. The aim of creating a network is two-fold. On the one hand, it should bring significant gains in the timeliness and efficiency with which the services are provided; and, on the other, it should substantially improve access of Member States and the international community in general to United Nations databases. An expanded and improved access to United Nations databases has become a high priority issue.

A. Accessing the United Nations databases

(a) Current situation

111. As shown elsewhere in the report, during 45 years of operation, the United Nations has generated and acquired an extraordinary volume of information related to every conceivable aspect and dimension of world events and activities. Many of the accumulated databases are the most desirable items of information for Member States and other users. Thus, the recent survey undertaken by the United Nations Secretariat shows that Member States are mostly interested in having access to full texts of documents (79 per cent), resolutions (76 per cent), treaties (72 per cent), press releases (65 per cent), bibliographic and statistical data (53 and 56 per cent, respectively). In this regard, it is also worth noting that retrieval access to DOCFILE, for example, has been growing rapidly . According to the information provided by the United Nations Library, the number of such accesses in 1987 was 6,617 in 1988 - 8,591 in 1989 - 9,608 and in 1990 11,464. The number of user groups has also increased from 26 in 1987 to 36 at present.

112. Government and United Nations officials, who routinely access United Nations records, resolutions and other types of information, have traditionally obtained this information by means of conventional library methods. Often, such research is time consuming and even costly. This is particularly true in regard to time-sensitive information sources such as: news items, financial data, etc., which tend to change from day to day. However, such information is frequently available via on-line databases which can be accessed by means of computers and telecommunications systems. Member States have had direct dial access to United Nations databases since 1986.

113. There are two basic ways of accessing United Nations databases, viz., through a United Nations on-line host computer system or by means of an on-line host outside the United Nations system, maintained on central computers located in such cities as: Addis Ababa, Geneva, Montreal, New York, Paris, Rome, Santiago, Vienna and Washington. Some United Nations organizations offer on-line services from their own computers. Thus, the Dag Hammerskjöld Library, for example, provides access to external databases such as DIALOG, NEXIS and LEXIS, which bring together hundreds of external resources. In order to provide a more widespread access to UNBIS data, DHL also contributes to the Research Libraries Network (RLIN) database which is accessible worldwide via standard telecommunication networks. Also available on-line, through the United Nations Statistical Information System (UNSIS), are databases which, in addition to commodity trade statistics (COMTRADE) accessible on-line since 1986, include national accounts, industrial production and energy databases.

114. The regional economic commissions have initiated quite a number of programmes aimed at facilitating access to their databases. The Economic Commission for Europe is already providing Member States with on-line access to the ECE Statistical Database (ECESDB). The databases and information /...

systems of the Economic Commission for Africa (ECA) are accessible through its Pan African Development Information System (PADIS). The Economic Commission for Asia and the Pacific (ESCAP) has been working in co-ordination with United Nations Headquarters to ensure that its evolving technological innovations infrastructure conforms to international standards for open systems and is in harmony and fully integrated with the United Nations computer and communications network. The Economic and Social Commission for Western Asia (ESCWA) and the Economic Commission for Latin America and the Caribbean (ECLAC) have regularly disseminated their databases on diskettes. Currently, the databases of ESCAP are housed on stand-alone microcomputers and those of ECLAC are available on CD-ROM.

115. The following organizations and agencies of the United Nations system offer services via public data networks: FAO, IAEA, IBRD, ICAO, ILO, IMF, UNESCO, UNICEF and UNU. United Nations databases accessible via public data networks are in theory available to any user in the world who has access to public data networks. For example, FAO's AGRIS database is available on the following three different hosts: DIALOG, Deutsches Institut für Medizinische Dokumentation und Information (DIMDI), (Cologne, Germany) and ESA-IRS; ILO's LABORDOC database on five different hosts: Arab League Documentation Centre (ALDOC, Tunis, Tunisia), ESA-IRS, International Development Research Centre (IDRC, Ottawa, Canada), ORBIT Information Technologies Corp. (McLean, VA) and Executive Telecom (Indianapolis, IN); UNESCO Bibliographic Data Base (CDS/UNESBIB) on IDRC; and UNICEF Electronic Information Network on Dialcom (Silver Spring, MD). With users scattered over all continents, most hosts provide a 24-hour service.

116. However, it has to acknowledged that the United Nations databases are difficult to access, often requiring specialist knowledge. First, there are technical problems related to accessing information sources by means of on-line searching. Second, access to the United Nations databases is also limited by the mere fact of non-availability of modern technology to potential users. Thus, many developing countries do not yet have modern tele-communication networks required for on-line searching. Third, a common lack of communication within the United Nations system itself hampers access to the databases, wherefrom an urgent need for improved co-ordination of efforts. Finally, lack of knowledge about procedures for gaining access is also an important inhibiting factor. In this connection, the Secretary-General recognized that "while more than 56 missions have access to the New York Computer Section (NYCS) mainframe computer, there has been no systematic, centralized effort to keep missions informed which contributed to the overall confusion and frustration among missions regarding access to United Nations material" (see E/1992/78, page 4, paragraph 3).

(b) ECOSOC resolution 1991/70 and Secretary-General's report

117. Given technical possibilities capable of improving the existing situation, United Nations Member States consider it imperative to have easy, economical, uncomplicated and unhindered access to these sources of information. The Economic and Social Council, at its Second regular session of 1991, adopted resolution 1991/70 on the need to harmonize and improve United Nations informatics systems for optimal utilization and accessibility by all States.

118. In this resolution, the Council, in particular, regretted that at present lack of the above conditions in existing United Nations informatics systems limits such access and stressed the need for representatives of Member States to be actively associated with United Nations bodies, for example the International Computing Centre, dealing with informatics within the United Nations system. The Council also requested the Secretary-General to prepare,

within existing resources and in consultation with representatives of Member States, a study analysing the causes of the present situation with respect to United Nations informatics systems and providing an outline of a rapid solution to the problem, leading to easier, economical and unhindered access to United Nations computerized databases and information systems and services, which are of great importance to all Member States, in particular to the developing countries, and to report thereon to the Council at its regular session of 1992.

119. In compliance with the above request, the Secretary-General submitted to the ECOSOC substantive session of 1992 a report entitled "Harmonization and improvement of the United Nations informatics systems for optimal utilization and accessibility by all States" 8/. This very timely and valuable document presents:

(a) the status of the most-requested United Nations databases;

(b) the activities undertaken by the United Nations Headquarters, ACCIS, UNITAR and ICC in immediate response to resolution 1991/70; and

(c) the problems to be addressed as well as near- and longer-term solutions and the costs thereof.

In his report, the Secretary-General clearly identifies activities to be initiated in order to cope with the needs for:

(a) user-friendly access to existing United Nations databases;

(b) continuous flow of information to the Member States regarding United Nations databases;

(c) easier physical access to databases;

(d) training; and

(e) policy co-ordination.

The activities suggested by the Secretary-General are consonant with the recommendations formulated in the present report.

(c) The role of ACCIS

120. Improvement of access to the United Nations electronic databases and information services has been a long-standing concern of the United Nations Advisory Committee for the Co-ordination of Information Systems (ACCIS). The ACCIS Working Group on Databases Dissemination, which first met in December 1989, considered a number of alternative proposals through which database access and dissemination could be improved. Its recommendations included developing a methodology for merging data dealing with a specific subject but generated by different agencies.

8/ Co-ordination Questions: International Co-operation in the Field of Informatics. Harmonization and improvement of the United Nations informatics systems for optimal utilization and accessibility by all States. Report by the Secretary-General (E/1992/78, 30 June 1992).

121. In 1990, ACCIS found there had been little progress in making available the enormous amount of information generated by the system to Member States at the national level, e.g. ministries of planning, labour, health, education, etc., as well as to other government and national institutions. It also identified the main factors limiting access to the United Nations databases and information services which fell into two main categories. The first comprises those found at organizational or policy level and related to whether or not United Nations agencies want to make this information widely and easily available, along with information from other agencies. The second category includes technical issues, i.e., lack of uniform database structures, indexing languages and accessing methods which inhibits retrieval of related information from databases produced by different agencies and repackaging it for use by Member States. However, ACCIS believes that SDI (Selective Dissemination of Information) techniques and the availability of intelligent gateways suggest that solutions are possible to problems of access and repackaging for dissemination.

B. Overcoming obstacles

122. The description of problems inhibiting easier access to the United Nations databases suggests that, to a large extent, these may be solved through two complementary types of action: (a) further modernization of individual libraries; and (b) enhanced co-operation between the libraries of the United Nations system.

(a) Further modernization

123. Chapter III of the present report reveals that during the 1980s, significant progress was achieved in utilization of information and communication technology for the improvement of the library function in individual organizations of the United Nations system. Three possible routes of further modernization of United Nations libraries can be reasonably envisaged: (a) the introduction of integrated local management systems; (b) the creation of on-line or CD-ROM databases; and (c) the electronic storage of documents on optical discs.

(i) Integrated local management systems

124. There are at least five libraries in United Nations system organizations (UNOG, VIC, ILO, WHO, WIPO) which use integrated management systems. Elements for such a system exist in UNESCO. As for the United Nations library, it needs to be mentioned that during the period 1992-1997, a dedicated system for integrated management and information for United Nations libraries will be installed, following a coherent plan and through co-operative preparations. It will be based on commercially available software and dedicated minicomputers at Headquarters and at Geneva, with batch transfer of the cataloguing and indexing data of the Geneva Library to Headquarters. Such a library automation system, with adequate documentation and networking facilities and with an integrated approach to the various library management procedures, is necessary for the enhancement of the UNBIS retrieval system.

125. It also should be noted that appropriate linkage is planned to be established between the dedicated library system and the Integrated Management Information System of the United Nations and its development and operation will be within the framework of co-operation established by the Advisory Committee for the Co-ordination of Information Systems.

126. These systems will enable each library to computerize a variety of functions hitherto performed manually: acquisitions, serials, cataloguing, loans and circulation of publications, and the selective dissemination of information (SDI). These five modules are all combined in a single working environment with the On-line Public Access Catalogue (OPAC) as its key. This computerized catalogue allows access to the data in the system in expert mode or simplified mode.

(ii) On-line or CD-ROM databases

127. It is possible from the "cataloguing" module of the integrated management system to transfer entries regularly to one central or several different specialized databases, as need dictates. In the United Nations, the Dag Hammarskjöld Library in New York and the Palais des Nations Library in Geneva are already working together to build up the UNBIS database. This, managed by the New York Computing Service, will eventually be linked up with the optical conference documents processing system.

128. The creation of shared bibliographical products is essential to the coordination of information systems not only for printed bibliographies or catalogues but also for CD-ROM discs. Many organizations have created or are planning to create CD-ROMs of their bibliographic or text databases. These include the World Bank, the World Health Organization, the International Labour Office and the United Nations itself. The United Nations, for instance, is planning to put the UNBIS database onto CD-ROM with interactive, user-friendly software; discs will appear quarterly. The United Nations is also interested in databases which provide full texts of documents. There must be a good match between the on-line databases which are updated immediately and the CD-ROM products which can be transported to a wide variety of sites, particularly developing countries which today are unfamiliar with and unconnected to the major international data transmission networks (a major obstacle being the high cost of communications).

(iii) Electronic document storage on optical disc

129. Between 1988 and 1990, the United Nations Office at Geneva conducted a trial of conference document storage on optical discs. As the trial demonstrated the reliability of the system and its great potential benefits to the organization, the General Assembly decided to go ahead with an operational optical disc system both in New York and Geneva. This system will allow users of conference documents: (a) to identify documents they are looking for through an easy-to-follow indexing system based on UNBIS; and (b) to retrieve entire documents or parts of them, either on screen or as printouts, using standard personal computers. The establishment of the system involves close co-operation between publishing services, the Dag Hammerskjöld and UNOG libraries, and the typing pools at both duty stations.

130. Thus, a major concern during the medium-term plan period (1992-1997) will be how to harness advances in this technology effectively so as to establish a truly global network of conference and library services which can be used for the electronic storage, remote retrieval and transmission of texts and images world-wide. (See the United Nations Medium-Term Plan for the period 1992-1997, Programme 39, Conference and Library Services, A/45/6/Rev.1.) But before the global network is created, it is imperative to establish an effective and integrated library network within each organization, with the

necessary leadership, services and support provided by the central library. The leadership role, responsibilities and functions of the central library within the overall information system of each organization have to be clearly defined. Appropriate linkages between central libraries and other information units of the organizations need to be established as a matter of priority which would, among other things, avoid application of incompatible software, duplication of acquisitions, etc.

131. The routes to library modernization having been established, there is a parallel need to enhance co-ordination while respecting the distinctive identity and nature of each establishment. Special attention needs to be given to a number of developments in order to make better use of the resources and document collections which are among the prize assets of the United Nations system: the creation of an international database server and joint CD-ROM products, as well as exchanges of data and experience.

(b) Enhancing inter-library co-operation

132. The preceding analysis leads to the unavoidable conclusion that the efforts undertaken by organizations of the United Nations system in modernizing their libraries and information centres should be supported by enhanced forms of co-operative arrangements. The new technology itself imposes such a co-operation if an integrated network is to be established. The respective areas are standardization, production of CD-ROM discs, establishment of an international database server, inter-library loans, introduction of a common policy on collection management and electronic document storage. Obviously, the strategic aim of activities to be carried out in these areas is the improvement of access to the United Nations databases. There is a role to be played here both by ACCIS and the Inter-Library Panel.

(i) Standardization

133. New information technology could do much to promote co-operation among the libraries of the United Nations system. Provided international standards and the distinctive nature of each establishement are respected, it should be possible to conduct joint policies, design joint products and facilitate wider access to the documentary reserves which are the wealth of the whole system.

134. Many firms around the world offer integrated products operating to international AACR-2 standards and using a common data exchange format. For example, MARC, which appears to be the most convenient machine-readable form for several reasons, including its flexibility, vast application, etc. It facilitates exchange of information among libraries and with users who are themselves able to use records in machine-readable form. Ability to use and create records in a MARC format, catalogued to international standard rules, for example, would mean that libraries could utilize cataloguing from other machine-readable sources (e.g., from bibliographic utilities or United Nations libraries), thus reducing the necessity for duplicating cataloguing efforts. Databases or parts of databases could be exchanged more easily among libraries.

135. At the same time, each library can opt for different library management systems, depending on local requirements and what firms operate in its vicinity, provided that they all meet international standards. Then each library can tailor the integrated system to its own needs, working habits and documentary history without hampering the development of shared bibliographical tools.

/...

(ii) Joint production of CD-ROM

136. Since many organizations would like to make CD-ROM of their databases, joint production of CD-ROM appears to be both feasible and advisable. The wide range of approaches, methods and techniques and the variety of commercial firms offering their services make for a lack of clear definition in this new area. International libraries, however, need reliable, user-friendly products and software, if possible shared by several organizations.

137. The Inspector, therefore, thinks it would be wise to consolidate efforts, in two areas particularly: the awarding of shared markets to a number of organizations which all choose the same companies offering the same kind of product; and the production of "charter" discs containing several databases from different organizations.

138. This policy is vital to the spread of international information. There are too many compact discs offering different software and access methods. The United Nations systems needs products that adopt the same approach and the same means of access so that the diverse populations it serves are not disoriented by an avalanche of products each involving new procedures for them to learn. What is needed is co-ordination to facilitate access to such new products while generating savings on the volume of information for processing.

139. In this connection, the Inspector would like to note that the ACCIS secretariat is preparing a report on optical storage technology which will be available in late 1992. It will identify use of optical storage discs in all organizations and the standards being used. It also intends to make recommendations for standards to be used by the system. Should these recommendations be acceptable to the Committee, the next step would be to recommend them to ACC as system-wide regulations.

(iii) Inter-library panel

140. The most important recommendation in JIU/REP/84/1 (A/39/299) is that highlighting the necessity of creating an inter-library panel which would help develop a co-operative and effective network of United Nations system libraries. JIU suggested that the panel meets periodically, establishes a practical co-operative work programme, and reports jointly back to the organizations on actions taken or needed. Moreover, JIU identified a number of possible specific areas of concern which included: (a) the development of common indexing vocabularies and bibliographic control over United Nations system documentation; (b) improved human resources planning, career development, recruitment and staffing standards, and training for library staff; (c) inter-library co-operation at local duty stations; (d) microform programmes and joint use of other available and emerging technologies; (e) strengthening the effectiveness of depository library networks; and (f) closer working relationships with public information centre libraries, relevant UNESCO-supported programmes and national library organizations.

141. In his comments (A/39/299/Add.1) on the report, the Secretary-General agreed that the JIU call for improving co-operation among libraries through the establishment of a new mechanism at the inter-agency level was well stated and deserved careful examination by the organizations concerned. He also expressed his belief that in order to be effective such a panel had to be integrated into the framework of the Administrative Committee on Co-ordination (ACC) and its subsidiary bodies. At the same time, the Secretary-General

considered that such a procedure would have financial implications for organizations and would only be justified if such a panel were to set a minimum of specific and realistic goals. The specialized agencies and United Nations bodies generally supported the idea of setting up an inter-library panel, though reservations were expressed by ILO and FAO. ILO mentioned that the prerequisite for such a panel was a basic commitment from organizations to strengthen library co-operation, and the main question was how achieve this commitment. ILO further suggested that if this question was not addressed, there would be little point in making even a relatively modest investment in meetings of an inter-agency panel. FAO, in turn, believed that any possible advantage to be derived from a co-operative system-wide venture had to be weighed against the additional staff time and costs involved and, thus, questioned the need for setting up formal machinerey in the form of an inter-library panel. Informal ad hoc consultations to deal with specific needs and problems as they arise appeared to FAO more cost effective and practical.

142. The Advisory Committee on Administrative and Budgetary Questions (ACABQ), although concuring with JIU's view on the need for closer co-operation between libraries of the United Nations system, recommended that ACC should further review the proposal to establish an inter-library panel in order to determine whether or not such an approach would best achieve the JIU objective. It also recommended that meetings of the panel, if constituted , should not be held too frequently and suggested that ad hoc meetings every three or four years might be sufficient.

143. As a result, an inter-library panel was not established. In the Inspector's view, it represented a missed opportunity as, over the years, a forum has been sought for United Nations librarians to meet to address the issues of mutual concern such as suitable library automation software, human resource management concerns, documents delivery. It would also have allowed the libraries to harmonize their acquisition policies, as one should not underestimate the potential for the United Nations system libraries to band together as a "lobbying" force to encourage the development of new and needed products and services, or to obtain price reductions. The possibility of obtaining pricing concessions from suppliers, publishers, database vendors, etc., can still be explored. The United Nations and other publishers may be encouraged to produce publications in required, standard formats (e.g. United Nations documents on CD-ROM with good retrieval capability).

144. In this context, the Inspector is pleased to note that, in its 1992-1993 work programme, ACCIS, which is a subsidiary body of ACC, provides for meetings of directors of Headquarters libraries or their designates (Technical Panel on Inter-Library Co-operation Standards and Management, TP/LB) which would cover such areas as: (a) conversion of library catalogues of collections; (b) interconnections of automated library systems; (c) development of innovative library services using new technology; (d) encouragement for the development of systems exportable to Member States of products/services/tools specifically for libraries; and (e) stimulation of exchange of expertise and dissemination of knowledge between libraries. The Inspector considers this as a most positive and commendable effort towards improved communication and co-operation among the libraries of the United Nations system. However he, as well as many librarians with whom discussions were held, observes that (a) TP/LB has a temporary status and (b) the list of problems it deals with is not comprehensive.

V. CONCLUSIONS AND RECOMMENDATIONS

145. It is observed that since the mid-1980s, most libraries of the United Nations system have significantly increased utilization of modern information and telecommunication technology for improving their operations. In many libraries (UNOG, VIC, ILO, WHO, WIPO) integrated management systems have been installed. In some others (e.g., the Dag Hammerskjöld and UNESCO libraries) such systems are either planned to be set up or are partially operating. In a few organizations (ILO, UNESCO), tangible efforts are being made to develop a network of internal libraries and documentation centres within which libraries play an important part. In this context, it also needs to be mentioned that UNESCO is carrying out a "Clearing House" programme aimed at co-ordinating harmonization and gradually forging UNESCO's many information services into a single system. Also ambitious in this respect is the United Nations Medium-Term Plan (1992-1997) which aims at creating a global network of conference and library services so that it can be used for electronic storage, remote retrieval and transmission of texts and images worldwide.

146. Also noted is a strong tendency towards decentralization of library functions. Specialized research, at present, is being ever more concentrated in reference libraries and units of substantive departments, which create databases of their own, often bypassing the central library. Further decentralization of library functions will accompany extensive use of personal computers in the offices of the organizations' secretariats. It is important to emphasize that recent advances in information technology, while opening up great possibilities for decentralization of library and reference activities and making it possible to concentrate research close to an office desk, also allows better central co-ordination and optimal use of resources. Some measures to ensure advantage is taken of networking are presented below.

RECOMMENDATION 1

Increased attention should be given by organizations of the United Nations system to establishing effective linkages between all components of existing or potential networks with special emphasis on hardware and software used by libraries and documentation centres in order to ensure their compatibility.

147. In the Inspector's view, the creation of an effective and integrated library network within each organization, with the necessary leadership, services and support provided by the central library, remains a target to be attained. Undoubtedly, the introduction and use of new information technologies in the library and documentation centres of the United Nations system require "development of common policies, standards and procedures to ensure the efficient acquisition and use of such equipment". The system network approach also warrants that library and information services in each organization should be recognized in totality.

RECOMMENDATION 2

The organizations of the United Nations system should ensure that the relationships among different parts of their networks of internal libraries and documentation centres are clearly specified with proper planning and management techniques for even the smallest units.

RECOMMENDATION 3

Those responsible for the libraries (chiefs of conference services, library directors or chief librarians) should ensure that their experience in production and administering databases is made available within their own organizations to documentation centres, reference libraires and units.

148. With regard to establishing an internal network in the United Nations Secretariat, which possesses several libraries (see paragraphs 25 and 37), an additional recommendation is required. In paragraph 34 of the present report the Inspector makes reference to the necessity of continuous and effective co-ordination between the Dag Hammarskjöld and UNOG Libraries as far as application of modern technology is concerned. The Inspector observes that there had been different interpretation by those responsible of what should be proper relationships between the two libraries. The existing Organization Manual leaves room for ambiguity as far as these relationships are concerned.

149. In this context, it will be recalled that, in accordance with the Medium-Term Plan for the period 1992-1997, "the Dag Hammarskjöld Library at Headquarter is responsible for co-ordination of library policies, including the introduction of technical innovations, with United Nations libraries away from Headquarters and co-operates with them on projects and activities of mutual interest" (A/46/6/Rev.1, paragraph 39.14, p.226). It will also be recalled that as far back as 1949, the Headquarters responsibility for the Dag Hammarskjöld library and its relationship with the UNOG library were defined as follows: "the (Geneva) Library will be controlled by the Secretary-General administratively through the Director of the European Office, and from a policy point of view, through the Director of the Headquarters Library" (A/C.5/298 of 21 September 1949).

RECOMMENDATION 4 9/

The administrative and functional accountability of the UNOG library should be clearly established, given the on-going process of streamlining the Secretariat's functions and operations which, in particular, resulted in incorporating the Office of Conference Services, of which the United Nations Library is a part, into the Departement of Administration and Management. It would be timely and advisable to revise Section Q (Part II) of the Organization Manual (ST/SGB/Organization, Rev. 2), as appropriate.

150. The Inspector notes that JIU's original proposal to establish a common integrated library system of the United Nations system based on internationally accepted standards was supported by all organizations and agencies of the United Nations system. It was recognized that co-operation between the libraries to set up new mangement standards and test the fast-growing technologies could only be beneficial to the whole system.

9/ In his comments on the draft of the present report the Inspector was informed by the Under-Secretary-General for Administration and Management that "In the light of the developments, New York will have the role of the network leader and judicious co-ordinator of common databases; Geneva will have the role of an historical library and a library in the current European economic situation. The role of Headquarters will be affirmed, whereas specific local factors and functional characteristics will be taken into account, altogether with a view to achieving renewed effectiveness."

151. Since then, as the preceding analysis suggests, the libraries of the United Nations system have significantly progressed in utilization of modern information and telecommunications technology. Some of them use common databases through commercial and non-commercial host computers, ICC or others. The United Nations Bibliographic Information System (UNBIS) has evolved into a joint bibliographic network sharing data and computer resources. Many United Nations organizations use the same or compatible software (see Annex II). Thus, objective conditions are being rapidly created for establishing a system-wide network.

152. It is believed that efforts currently made by the libraries and documentation units of organizations of the United Nations system in modernizing their services, the expenses involved and the well-established trend towards creating an integrated library network urgently require improved co-ordination efforts. In this respect, the Inspector recalls the JIU proposal to establish an inter-library panel as a first step towards an integrated library network. This step, however, was not made, which is regrettable. At the same time, the commendable initiative of ACCIS to convene, within the framework of its 1992-1993 work programme, meetings of directors of headquarters libraries or designates to address issues of common concern (see paragraph 127 above) is noted.

153. In the Inspector's view, however, these meetings provided for on a short-term basis and having limited agendas cannot replace an inter-library panel whose main task would be establishing practical co-operative arrangements in specific areas. As follows from Chapter IV, issues of common concern include: (a) indexing and bibliographic control; (b) application of international standards; (c) CD-ROM production and dissemination; (d) utilization of commercial and non-commercial hosts; (e) creation of the system-wide documentation and publications database; (f) establishing a common acquisitions catalogue; (g) harmonization of acquisitions policy; (h) international database server; (i) resources sharing; (j) human resources management; (k) training of librarians; (l) exchange of international staff; and (m) production and dissemination of databases on CD-ROM, etc. The Inspector observes that the price of unco-ordinated activities of United Nations system libraries may be significantly higher than the costs that may be incurred with respect to the functioning of the inter-library panel. At the same time, the Inspector believes that organizations and agencies of the United Nations system should take advantage of existing mechanisms for inter-library co-operation in order to avoid duplication and misuse of financial and human resources.

RECOMMENDATION 5

A permanent inter-library panel should be created, preferably on the basis of the existing Technical Panel on Inter-Library Co-operation Standards and Management (under ACC's auspices), for discussing issues of system-wide concern and elaborating policy recommendations thereon to the organizations and agencies. These may wish to consider providing resources to their libraries to cover expenses for participation in the work of the panel.

154. Elsewhere in the report (see in particular paragraphs 45 and 64 above), the Inspector observed that libraries which had programme analysts and other staff with adanced knowledge in informatics were particularly successful in introducing and utilizing modern technology. On the contrary, the libraries with no such staff experienced serious difficulties in this area. In the Inspector's view, information technology and science cannot only be learned

on-the-job. Professional training is needed for those on board to keep abreast with modern technologies which evolve very rapidly. In addition, the organizations and agencies of the United Nations system should pay particular attention to recruiting librarians with advanced knowledge in informatics. In this regard, it may be recalled that, for example, IAEA (since 1983) and FAO (for a number of years) include advanced knowledge in information technology as a prerequisite for the recruitment of librarians. It is also important to note that the Inter-Agency Meeting on Language Arrangements, Documentation and Publications (IAMLADP) held in June 1992 in Paris discussed extensively the necessity of adequate professional training of librarians.

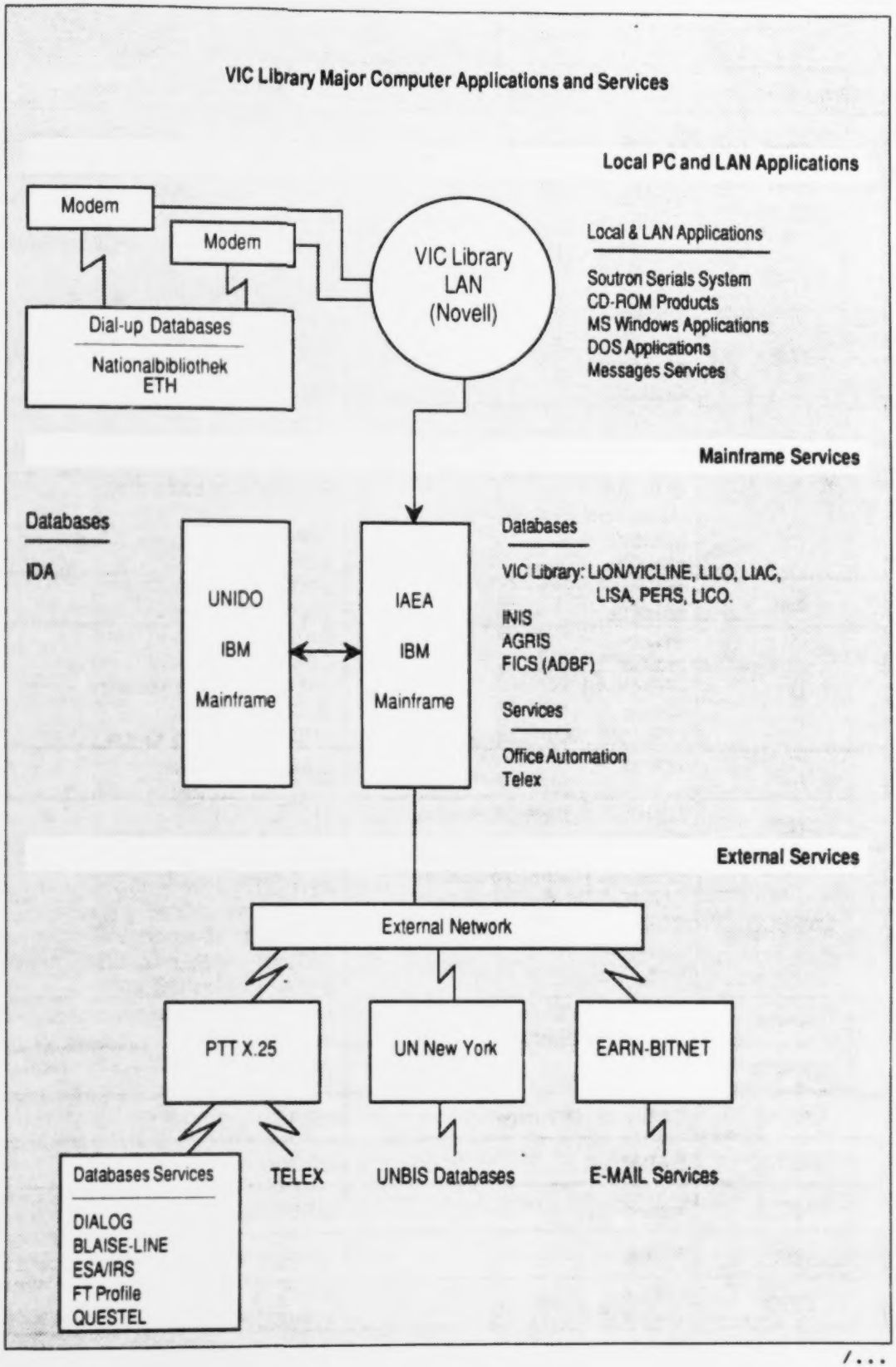
RECOMMENDATION 6

In view of the rapid automation of United Nations system libraries and their changing working methods, organizations and agencies should pay particular attention to qualifications of librarians. Two ways of enhancing the quality of library staff should be considered as a matter of priority:

(a) professional training of librarians including their temporary assignment to national libraries with highly advanced technological systems;

(b) recruitment of librarians with advanced knowledge in information technology.

ANNEX I


VIC Library Major Computer Applications and Services
Local PC and LAN Applications
Modem
Modem
Dial-up Databases
Nationalbibliothek
ETH
VIC Library
LAN
(Novell)
Local & LAN Applications
Soutron Serials System
CD-ROM Products
MS Windows Applications
DOS Applications
Messages Services
Mainframe Services
Databases
IDA
UNIDO
IBM
Mainframe
IAEA
IBM
Mainframe
Databases
VIC Library: LION/VICLINE, LILO, LIAC, LISA, PERS, LICO.
INIS
AGRIS
FICS (ADBF)
Services
Office Automation
Telex
External Services
External Network
PTT X.25
UN New York
EARN-BITNET
Databases Services
DIALOG
BLAISE-LINE
ESA/IRS
FT Profile
QUESTEL
TELEX
UNBIS Databases
E-MAIL Services

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ANNEX II

UNITED NATIONS SYSTEM LIBRARY SOFTWARE
(selected data provided by ACCIS)

Organization	Software	Bibliographic Database
ECA	Insight MINISIS; CDS; ISIS (Mini-micro version)	ECA Africa Index PADDEV (Also factual)
ECLAC	CDS/ISIS CDS/ISIS	AUTORI (also referral) BIBLOS
ESCAP	IRS-4 IRS-4 IRS-4	EBIS/LIB EBIS/IRD EBIS/POPFILE
FAO	CDS/ISIS CDS/ISIS CDS/ISIS CDS/ISIS	AGLINET FAODOC FAOLIB Library Serials
IAEA	CDS/ISIS CDS/ISIS CDS/ISIS	LICO LION LISA
ILO	CDS/ISIS (Mini-micro version) MINISIS MINISIS	ROAPDOC (also referral) LABORDOC Serials
IMF	MINISIS MINISIS	JOLIS Biblio JOLIS Catalog
UN	Inquire Inquire BRS/SEARCH Inquire CDS/ISIS (Mini-micro version)	CATFILE DOCFILE DPOC (controlled vocab.) TNCBIS UNCITRAL (Law Library)
UNDRO	Inquire	(full text; referral)
UNEP	CDS/ISIS (Mini-micro version) CDS/ISIS	EPLIB DELI
UNESCO	CDS/ISIS (Mini-micro version) CDS/ISIS (Mini-micro version) CDS/ISIS (Mini-micro version) CDS/ISIS CDS/ISIS	Library & documentation PERIOD ROSTSCA UNESBIB UIE Life-long Education Bibliography and Awareness List
UNFPA	CDS/ISIS (Mini-micro version) CDS/ISIS (Mini-micro version)	Law and Population Library Holdings
UNHCR	Inquire	REFLIT
UNCHS	CDS/ISIS (Mini-micro version)	HSLIB
UNCTAD	SAS/share	URUC
UNICEF	Inquire	BIBLIOFILE
UNU	FAIRS	UNU Library
WHO	URICA CARDBOX	WHOLIS WPROLIB